### DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES Office of Structural Materials

Quality Assurance and Source Inspection

Bay Area Branch 690 Walnut Ave.St. 150 Vallejo, CA 94592-1133 (707) 649-5453 (707) 649-5493



Contract #: 04-0120F4

Cty: SF/ALA Rte: 80 PM: 13.2/13.9

File #: 69.28

# WELDING INSPECTION REPORT

Resident Engineer: Pursell, Gary **Report No:** WIR-015161 Address: 333 Burma Road **Date Inspected:** 22-Jun-2010

City: Oakland, CA 94607

**OSM Arrival Time:** 700 **Project Name:** SAS Superstructure **OSM Departure Time:** 1900 **Prime Contractor:** American Bridge/Fluor Enterprises, a JV

Contractor: Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China

**CWI Name:** Mr. Chen Xi **CWI Present:** Yes No **Inspected CWI report:** Yes N/A **Rod Oven in Use:** Yes No No N/A N/A **Electrode to specification:** Yes No Weld Procedures Followed: Yes No N/A N/A **Qualified Welders:** Yes No **Verified Joint Fit-up:** Yes No N/A N/A Yes N/A **Approved Drawings:** Yes No **Approved WPS:** No Yes No N/A **Delayed / Cancelled:** 

34-0006 **Bridge No: Component:** Orthotropic Box Girder (OBG)

### **Summary of Items Observed:**

This CALTRANS OSM Quality Assurance Inspector (QA) Surendra Prabhu was present during the times noted above for observations relative to the fabrication of the Self Anchored Suspension (SAS) Superstructure being performed by Zhenhua Port Machinery Company (ZPMC) at Changxing Island, in Shanghai, China. QA observed and/or found the following:

#### BAY-1

The following Non Destructive Testing (NDT) Inspection carried out as per the ZPMC submitted Notification No. 006032.

Visual Testing (VT)

This QA performed Random VT of the area previously tested and accepted by ZPMC Quality Control (QC) personnel. The members are identified as OBG Crossbeam Cat walk Railing (Miscellaneous) weld Components.

This QA Inspector Randomly observed the following work in progress:

Flux Cored Arc Welding (FCAW) buttering welding of Traveler Rail 21TR4-002. Welder is identified as 215397. ZPMC Quality Control (QC) is identified as Mr. Xiang Feng Feng. The welding variables recorded by QC appeared to comply with the Applicable WPS: WPS-345-FCAW-1G (1F)-Repair-1. The buttering was been performed as per the Critical Welding Report (CWR) No: B-CWR1568.

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ZPMC Personnel performing Heat Straightening for the Traveler Rail (TR) 20TR1-028. Heat straightening was being performed appeared to comply with the Caltrans Engineer approved Applicable HSR Repot# HSR (B)-363 Rev.No:1. ZPMC Quality Control (QC) is identified as Mr. Ai Wei.

BAY-2

ZPMC Personnel performing Heat Straightening for the Traveler Rail (TR) 20TR1-002. Heat straightening was being performed appeared to comply with the Caltrans Engineer approved Applicable HSR Repot# HSR (B)-370. ZPMC Quality Control (QC) is identified as Mr. Cai Xiao Fang.

FCAW of weld joint FB3187-001-035/036. Welder is identified as 067947. ZPMC Quality Control (QC) is identified as Mr. Zhulin. The welding variables recorded by QC appeared to comply with the Applicable WPS: WPS-B-T-2132-3.

FCAW of weld joint FB3189-001-0097. Welder is identified as 067275. ZPMC Quality Control (QC) is identified as Mr. Zhulin. The welding variables recorded by QC appeared to comply with the Applicable WPS: WPS-B-T-2232-TC-U4b-F.

Shielded Metal Arc Welding (SMAW) Tack welding of weld joint FB3178-001-014/015. Welder is identified as 066480. ZPMC Quality Control (QC) is identified as Mr. Zhulin. The welding variables recorded by QC appeared to comply with the Applicable WPS: WPS-B-P-2112. Refer attached photos for additional details.

BAY-3

FCAW of weld joint FB3134-001-026 and 027. Welders are identified as 208035 and 214945 respectively. ZPMC Quality Control (QC) is identified as Mr. Zhang Yaxu. The welding variables recorded by QC appeared to comply with the Applicable WPS: WPS-B-T-2132-3.

FCAW of weld joint FB3114-001-011 and 012. Welders are identified as 206623 and 052696. ZPMC Quality Control (QC) is identified as Mr. Zhang Yaxu. The welding variables recorded by QC appeared to comply with the Applicable WPS: WPS-B-T-2132-3.

Unless otherwise noted, all work observed on this date appeared to generally comply with applicable contract documents.

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# **Summary of Conversations:**

Only general conversation was held between QA and Quality Control (QC) concerning this project.

#### **Comments**

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Eric Tsang 15000422372, who represents the Office of Structural Materials for your project.

Inspected By:	Prabhu,Surendra	Quality Assurance Inspector
Reviewed By:	Hall,Steven	QA Reviewer